

IN THE SPECIFICATION

Please replace the paragraph beginning at page 8, line 16 with the following amended paragraph:

--For the measurement of this transvalvular impedance, reference is made to the EP -A-1 116 497 and its corresponding U.S. Patent No. 6,604,002 B1, commonly assigned herewith to ELA Médical. These documents describe a technique for measuring the transvalvular bi-impedance (between atrium and ventricle located on the same side of the heart) by a tripolar configuration. A pulse of a current of low amplitude, insufficient to excite the cardiac cells, is injected between two of the sites. A differential potential is sensed between two different sites in this same configuration and provides the impedance signal. U.S. Pat. No. 6,604,002 B1 is incorporated herein by reference in its entirety.--

Please replace the paragraph beginning at page 9, line 4 with the following amended paragraph:

--It is known from EP -A-1 138 346 and its corresponding U.S. Published Patent Application US2001/0034540 A1, also commonly assigned herewith to ELA Médical, and incorporated herein by reference, how to obtain a measurement of another type of bio-impedance, namely a transeptal bi-impedance. The transeptal impedance is measured between one site placed on one side of the heart (e.g., the right ventricle) and a site placed on the other side of the heart (e.g., the left ventricle or left atrium). This technique also makes it possible to deliver a signal representative of the mechanical activity of the heart. However, the transeptal impedance signal is weaker than in the case of the measurement of a transvalvular bio-

impedance, and the delivered signal is also influenced by the impedance of tissues of the septum.--

Please replace the paragraph beginning at page 10, line 7 with the following amended paragraph:

-- Mechanical activity of the myocardium results in an increase ΔZ of the impedance Z quantity. The increased impedance is compared with the threshold S as defined above. The device will then consider (stage 18) that there was significant mechanical activity if the signal Z crosses threshold S . Of course, it should be understood that other thresholds or methods of evaluation of the variation of impedance Z can be used, which technique involves detecting a notable increase in the value of the bio-impedance as compared to an initial measurement Z_0 .--